

REMARKS:

The Office action mailed June 2, 2006 has been received and carefully considered. Reconsideration of the claims as amended hereby is respectfully requested.

Various objections were entered with respect to the claims. The claims have been amended in such manner which is believed to resolve all the issues raised. It is specifically noted that Claims 23 to 30 should be dependent from Claim 22, as was believed by the Examiner, and this change is included in the amendment.

Claim 1 was rejected variously with respect to Nichols, Barker, et al., Brace, et al. and Biedermann, et al. Claim 1 has been amended to better reflect the invention and is urged to distinguish over the references of record.

In particular, Claim 1 is directed to a bone screw assembly having a shank and retainer ring that are non integral so as to allow the shank to be uploaded through the bore in the head and then secured to the retainer ring to form a joined structure, such that the retainer ring then rotates with the shank within the head during positioning adjustment. While Barker, et al. shows an uploaded shank, the retaining ring 90 locks in position in the head and does not rotate with the shank. Nichols teaches a similar structure except the shank downloads with respect to the head and the retainer ring 42 locks relative to the head

above the shank rather than the lower part of the head, as shown in Barker, et al.

Furthermore, the present invention includes a shank and ring assembly that extends into the channel so that when the rod is placed into the channel that the rod engages the shank and retainer ring assembly and locks the assembly in a fixed position relative to the head. The Brace reference shows a shank and ball assembly; however, the rod 16 in Brace is never intended to engage the shank and retainer structure nor does the rod fix the structure in position relative to the head.

The Biedermann reference shows a shank and retainer structure, but it is designed to function with an insert or collet (here identified as pressure element 17) that fixes the position of the shank and retainer structure when the outer ring or nut 22 of the closure structure is tightened. The rod in Biedermann never engages the shank and retainer structure. While Claim 1 is believed to clearly distinguish over Biedermann, it is noted that Biedermann is a 102(e) reference. Applicant's invention of the invention claimed in this application is believed to predate the filing of Biedermann and, thus, applicant reserves the opportunity to swear back of the Biedermann reference, if necessary.

It is also urged that none of the cited references teach or suggest combination in the manner as called for in Claim 1. It

is especially noted that in none of the cited art does the shank and retainer structure extend into the channel, so as to ensure positive engagement with the rod. This is seen in applicant's device in that there is a gap between the rod and the bottom of the channel (see Fig. 1) into which the top of the shank extends. Thus, the assembly can be securely locked in place before the rod bottoms out in the channel to assure locking.

Claim 1, along with Claims 13 and 22, were provisionally rejected on the basis of obviousness - type double patenting with respect to Serial No. 10/651,003. If this rejection is made non provisional, applicant will file a terminal disclaimer with respect to the application and, if it would expedite prosecution, the undersigned would prepare and file such a Disclaimer at the telephone request of the Examiner.

Claim 13 was rejected based upon Nichols, Brace, Barker and Biedermann. Claim 13 has been amended to more fully claim applicant's invention and is believed to distinguish over the art of record. In particular, Claim 13 now calls for the retainer ring to join with the shank, so as to form a structure wherein both rotate together during the assembly configuration and wherein the shank and retainer ring structure is sized and shaped to directly engage the rod so as to secure the shank and retainer ring structure relative to the head. In both Nichols and Barker, the retainer ring secures to the head and does not rotate with

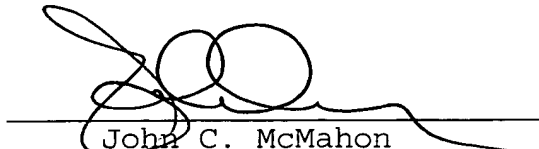
the shank. In Brace and Biedermann, the shank and rod structure cannot directly engage the rod.

Claim 22 was rejected upon each of the four previously cited references. Claim 22 has been amended so as to more fully claim the invention and is urged to distinguish from the cited references for the same reasons as discussed above for Claims 1 and 13.

It is, therefore, believed that Claims 1, 13 and 22 along with the claims that depend from them, distinguish over the art of record and are allowable. Notice to this effect is earnestly solicited.

The Examiner is invited to contact the undersigned by telephone, if prosecution of this application can be expedited thereby.

Respectfully Submitted,



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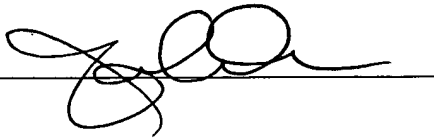
Roger P. Jackson

Serial No. 10/650,910

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correspondence is being deposited
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P.O. Box 1450,
Alexandria, VA 22313-1450 on
August 31, 2006.

Roger P. Jackson
(Applicant)

By

A handwritten signature in black ink, appearing to be 'R. Jackson', written over a horizontal line.

August 31, 2006

(Date of Signature)